



## CAN PUBLIC PENSIONS FULFILL THEIR PROMISES? An Examination of Pennsylvania's Two Largest Public Pensions

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The financial health of state and local pensions has received considerable attention in recent years. One major concern is that public pensions, such as Pennsylvania's Public School Employees' Retirement System (PSERS) and State Employees' Retirement System (SERS), likely will be unable to pay all their promised benefits in the future.

A new study for the Mercatus Center at George Mason University is the first to examine whether public pensions that are funded at various levels will have sufficient assets to pay all promised future benefits. The study also looks at the distribution of the potential accumulation of assets for pensions that do have sufficient assets. Examining PSERS and SERS using financial modeling over a period of years, the study presents two conclusions applicable to all public pensions:

- Due to the volatility of a pension's investment returns, there is less than a 50–50 chance that a fully funded pension will be able to pay all promised future benefits without additional contributions. Since most public pensions in the United States are funded at a level less than 100 percent, the problem is even more severe.
- If pensions make changes to increase the likelihood that all future benefits will be paid, there is an increased likelihood that the pension will accumulate “too many” assets, leading to political demands to distribute those assets through higher benefit payments, exacerbating future funding problems.

To read the study in its entirety and learn more about its authors, Erick M. Elder and Gary A. Wagner, see [“Can Public Pensions Fulfill Their Promises? An Examination of Pennsylvania's Two Largest Public Pensions.”](#)

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## PSERS AND SERS

Despite having combined assets of more than \$75 billion, Pennsylvania's two largest public pension plans, PSERS and SERS, may be underfunded by as much as \$100 billion. The burden of pension underfunding will require either

- increases in contributions from employers, lowering take-home pay for employees; or
- increases in contributions from the Commonwealth of Pennsylvania or municipalities, leading to higher taxes or a reduction in government services.

Due to the magnitude of unfunded pension liabilities, Pennsylvania has seen its general obligation bond ratings lowered by major credit rating agencies. As a result, Pennsylvania will be required to pay a higher interest rate on newly issued debt, raising the cost of government services and programs, such as building hospitals, new roads, and schools.

The continued underfunding of PSERS and SERS should be a major concern for policymakers in Pennsylvania. The proper analysis of and solution to this problem has implications for all public pensions in the United States.

## PENSION FUNDING THEORY

The funding ratio is a common metric for gauging the financial health of a public pension. Pensions that have funding ratios below 80 percent are generally considered underfunded, while pensions with funding ratios in excess of 100 percent are generally considered overfunded. But investment returns are critical to the true health of the plan, and those returns can be uncertain.

## KEY FINDINGS

Long-term financial modeling based on current funding ratios and an assumed distribution of asset returns leads to several conclusions:

- *Funding is sufficient for the next five years.* Both PSERS and SERS have a 100 percent probability that the pensions will have sufficient assets to pay benefits without an increase in contributions for the next five years.
- *Future funding sufficiency is doubtful.* After five years, the probability of sufficient funding declines: by 2030, PSERS will have only a 31 percent chance of sufficient funding and SERS will have only a 16 percent chance of sufficient funding. In 50 years, the chances drop to 4 percent (PSERS) and 1.5 percent (SERS).
- *Even fully funded pensions may have insufficient assets.* Due to the nature of investment returns and volatility, a fully funded pension may not have sufficient assets at a certain point in time: there is a 50–50 chance that any pension will have sufficient funding to pay all benefits by the year 2040.

- *Overfunding pensions may lead to increased benefit payments.* Even an overfunded pension, such as one with 20 percent more assets on hand than the expected value of future liabilities, will have less than a certain chance of making all future payments: by 2040, the probability is only 73 percent. However, when a pension is actuarially overfunded, political demands for increasing benefit payments may arise, leading to an even greater chance of funding insufficiency.

## IMPACT ON PENSION REFORM AND TAXPAYERS

Due to the underfunding of these pensions, it is highly likely that some sort of pension reform will occur in the future. Reforms will affect current and future public-sector employees, current and future public-sector retirees, and taxpayers—because additional contributions to public pensions may require higher taxes to pay for them.

## CONCLUSION

PSERS and SERS are severely underfunded based on traditional metrics and can only guarantee to finance promised obligations for the next five years. But even if the pensions were fully funded, they would have only a 50–50 chance of making all payments in the year 2040. However, rather than rush to fully fund the pension, reform-minded policymakers must consider the tradeoff of overfunding the pension. Future financial reports issued by each pension should include calculations indicating the likelihood that the pension will be able to meet its future obligations over different time periods.